

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING						FORM 3 AMENDED REPORT				
APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER LCU 4-36F				
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT NATURAL BUTTES				
4. TYPE OF WELL Gas Well <input type="checkbox"/> Coalbed Methane Well: NO <input type="checkbox"/>						5. UNIT or COMMUNITIZATION AGREEMENT NAME LITTLE CANYON				
6. NAME OF OPERATOR XTO ENERGY INC						7. OPERATOR PHONE 505 333-3145				
8. ADDRESS OF OPERATOR 382 Road 3100, Aztec, NM, 87410						9. OPERATOR E-MAIL Kelly_Kardos@xtoenergy.com				
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ML-47391			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>				
13. NAME OF SURFACE OWNER (if box 12 = 'fee')						14. SURFACE OWNER PHONE (if box 12 = 'fee')				
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')				
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input checked="" type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/>				
20. LOCATION OF WELL		FOOTAGES		QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN		
LOCATION AT SURFACE		860 FNL 889 FWL		NWNW	36	10.0 S	20.0 E	S		
Top of Uppermost Producing Zone		860 FNL 889 FWL		NWNW	36	10.0 S	20.0 E	S		
At Total Depth		860 FNL 889 FWL		NWNW	36	10.0 S	20.0 E	S		
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 860			23. NUMBER OF ACRES IN DRILLING UNIT 640				
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 1170			26. PROPOSED DEPTH MD: 9030 TVD: 9030				
27. ELEVATION - GROUND LEVEL 5256			28. BOND NUMBER 104312762			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-10447				
Hole, Casing, and Cement Information										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	12.25	9.625	0 - 2200	36.0	J-55 ST&C	8.4	Type V	362	1.92	12.8
							Type V	225	1.15	15.8
Prod	7.875	5.5	0 - 9030	17.0	N-80 LT&C	9.2	Premium Plus	459	3.12	11.6
							Class G	300	1.75	13.0
ATTACHMENTS										
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES										
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER					<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN					
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)					<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER					
<input type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)					<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP					
NAME Krista Wilson				TITLE Permitting Tech			PHONE 505 333-3647			
SIGNATURE				DATE 10/07/2011			EMAIL krista_wilson@xtoenergy.com			
API NUMBER ASSIGNED 43047521090000				APPROVAL Permit Manager						

XTO ENERGY INC.**LCU 4-36F****APD Data****November 6, 2007****Location:** 860' FNL & 889' FWL, Sec. 36, T10S, R20E **County:** Uintah **State:** Utah**GREATEST PROJECTED TD:** 9030' MD
APPROX GR ELEV: 5256'**OBJECTIVE:** Wasatch/Mesaverde
Est KB ELEV: 5270' (14' AGL)**1. MUD PROGRAM:**

INTERVAL	0' to 2200'	2200' to 9030'
HOLE SIZE	12.25"	7.875"
MUD TYPE	FW/Spud Mud	KCl Based LSND / Gel Chemical
WEIGHT	8.4	8.6-9.20
VISCOSITY	NC	30-60
WATER LOSS	NC	8-15

Remarks: Use fibrous materials as needed to control seepage and lost circulation. Pump high viscosity sweeps as needed for hole cleaning. Raise viscosity at TD for logging. Reduce viscosity after logging for cementing purposes. The mud system will be monitored visually/manually.

2. CASING PROGRAM:**Surface Casing:** 9.625" casing set at \pm 2200' in a 12.25" hole filled with 8.4 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-2200'	2200'	36#	J-55	ST&C	2020	3.66	394	8.921	8.765	2.10	3.66	4.97

Production Casing: 5.5" casing set at \pm 9030' in a 7.875" hole filled with 9.2 ppg mud.

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-9030'	9030'	17#	N-80	LT&C	6280	7740	348	4.892	4.767	1.84	2.27	2.27

Collapse and burst loads calculated at TVD with 0.1 psi/ft gas gradient back up.

3. WELLHEAD:

- A. Casing Head: Larkin Fig 92 (or equivalent), 9" nominal, 2,000 psig WP (4,000 psig test) with 8-5/8" 8rnd thread on bottom (or slip-on, weld-on) and 11-3/4" 8rnd thread on top.
- B. Tubing Head: Larkin Fig 612 (or equivalent), 6.456" nominal, 5,000 psig WP, 5-1/2" 8rnd female thread on bottom (or slip-on, weld-on), 8-5/8" 8rnd thread on top.

4. CEMENT PROGRAM:

A. Surface: 9.625", 36#, J-55, ST&C casing to be set at $\pm 2200'$ in 12.25" hole.

LEAD:

± 362 sx of Type V cement (or equivalent) typically containing accelerator and LCM.

12.8 ppg yield 1.92 ft³/sx

TAIL:

225 sx of Type V cement (or equivalent) typically containing accelerator and LCM.

15.8 ppg yield 1.15 ft³/sx

Total estimated slurry volume for the 9.625" surface casing is 956.5 ft³. Slurry includes 35% excess of calculated open hole annular volume to 2200'.

B. Production: 5.5", 17#, N-80 (or equiv.), LT&C casing to be set at $\pm 9030'$ in 7.875" hole.

LEAD:

± 459 sx of Premium Plus V Blend. (Type V/Poz/Gel) or equivalent, with dispersant, fluid loss, accelerator, & LCM mixed at 11.6 ppg, 3.12 ft³/sk, 17.71 gal wtr/sx.

TAIL:

300 sx Class G or equivalent cement with poz, bonding additive, LCM, dispersant, & fluid loss mixed at 13.0 ppg, 1.75 cuft/sx, 9.09 gal/sx.

Total estimated slurry volume for the 5.5" production casing is 1959 ft³. Slurry includes 15% excess of calculated open hole annular volume.

Note: The slurry design may change slightly based upon actual conditions. Final cement volumes will be determined from the caliper logs plus 15% or greater excess. The cement is designed to circulate on surface and intermediate casing strings.

5. LOGGING PROGRAM:

A. Mud Logger: The mud logger will come on at intermediate casing point and will remain on the hole until TD. The mud will be logged in 10' intervals.

B. Open Hole Logs as follows: Run Array Induction/SFL/GR/SP fr/TD (9030') to the bottom of the surface csg. Run Neutron/Lithodensity/Pe/GR/Cal from TD (9030') to 2200'.

6. FORMATION TOPS:

FORMATION	Sub-Sea Elev. (@SHL)	TVD (@SHL)
Wasatch Tongue	1,520	3,755
Green River Tongue	1,177	4,098
Wasatch*	1,045	4,230
Chapita Wells*	305	4,970
Uteland Buttes	-890	6,165
Mesaverde*	-1,620	6,895
Castlegate	N/A	N/A
TD**	-3755	9030

* Primary Objective

7. ANTICIPATED OIL, GAS, & WATER ZONES:

A.

Formation	Expected Fluids	Well Depth Top
Wasatch Tongue	Oil/Gas/Water	3,755
Green River Tongue	Oil/Gas/Water	4,098
Wasatch*	Gas/Water	4,230
Chapita Wells*	Gas/Water	4,970
Uteland Buttes	Gas/Water	6,165
Mesaverde*	Gas/Water	6,895
Castlegate	Gas/Water	N/A

- A. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.
- B. There are no known potential sources of H₂S.
- C. Expected bottom hole pressures are between 4100 psi and 4600 psi.

8. BOP EQUIPMENT:

Surface will not utilize a bop stack.

Intermediate hole will be drilled using a diverter stack with rotating head rated at 250 psi w.p.

Production hole will be drilled with a 3000 psi BOP stack.

Minimum specifications for pressure control equipment are as follows:

Ram Type: 11" Hydraulic double ram with annular, 3000 psi w.p.

Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 70% of internal yield pressure of casing. Pressure shall be maintained for at least 10 minutes or until requirements of test are met, whichever is longer. If a test plug is utilized, no bleed-off pressure is acceptable. For a test not utilizing a test plug, if a decline in pressure of more than 10% in 30 minutes occurs, the test shall be considered to have failed. Valve on casing head below test plug shall be open during test of BOP stack.

Annular type preventers (if used) shall be tested to 50% of rated working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer.

As a minimum, the above test shall be performed:

- when initially installed:
- whenever any seal subject to test pressure is broken
- following related repairs: and
- at 30 day intervals

Valves shall be tested from working pressure side during BOPE tests with all down stream valves open.

When testing the kill line valve(s) shall be held open or the ball removed.

Annular preventers (if used) shall be functionally operated at least weekly.

Pipe and blind rams shall be activated each trip, however, this function need not be performed more than once a day.

A BOPE pit level drill shall be conducted weekly for each drilling crew.

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No.2 for equipment and testing requirements, procedures, etc., and individual components shall be operable as designed. Chart recorders shall be used for all pressure tests. Pressure tests shall apply to all related well control equipment.

BOP systems shall be consistent with API RP53. Pressure tests will be conducted before drilling out from under casing strings which have been set and cemented in place. Test pressures for BOP equipment are as follows:

- Annular BOP -- 1500 psi
- Ram type BOP -- 3000 psi
- Kill line valves -- 3000 psi
- Choke line valves and choke manifold valves -- 3000 psi
- Chokes -- 3000 psi
- Casing, casinghead & weld -- 1500 psi
- Upper kelly cock and safety valve -- 3000 psi
- Dart valve -- 3000 psi

Blowout preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection will be recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs.

The BLM in Vernal, UT shall be notified, at least 24 hours prior to initiating the pressure test, in order to have a BLM representative on location during pressure testing.

- a. The size and rating of the BOP stack is shown on the attached diagram.
- b. A choke line and a kill line are to be properly installed.
- c. The accumulator system shall have a pressure capacity to provide for repeated operation of hydraulic preventers.
- d. Drill string safety valve(s), to fit all tools in the drill string, are to be maintained on the rig floor while drilling operations are in progress.
- e. See attached BOP & Choke manifold diagrams.

9. **COMPANY PERSONNEL:**

<u>Name</u>	<u>Title</u>	<u>Office Phone</u>	<u>Home Phone</u>
John Egelston	Drilling Engineer	505-333-3163	505-330-6902
Bobby Jackson	Drilling Superintendent	505-333-3224	505-486-4706
Glen Christiansen	Project Geologist	817-885-2800	

XTO ENERGY, INC.

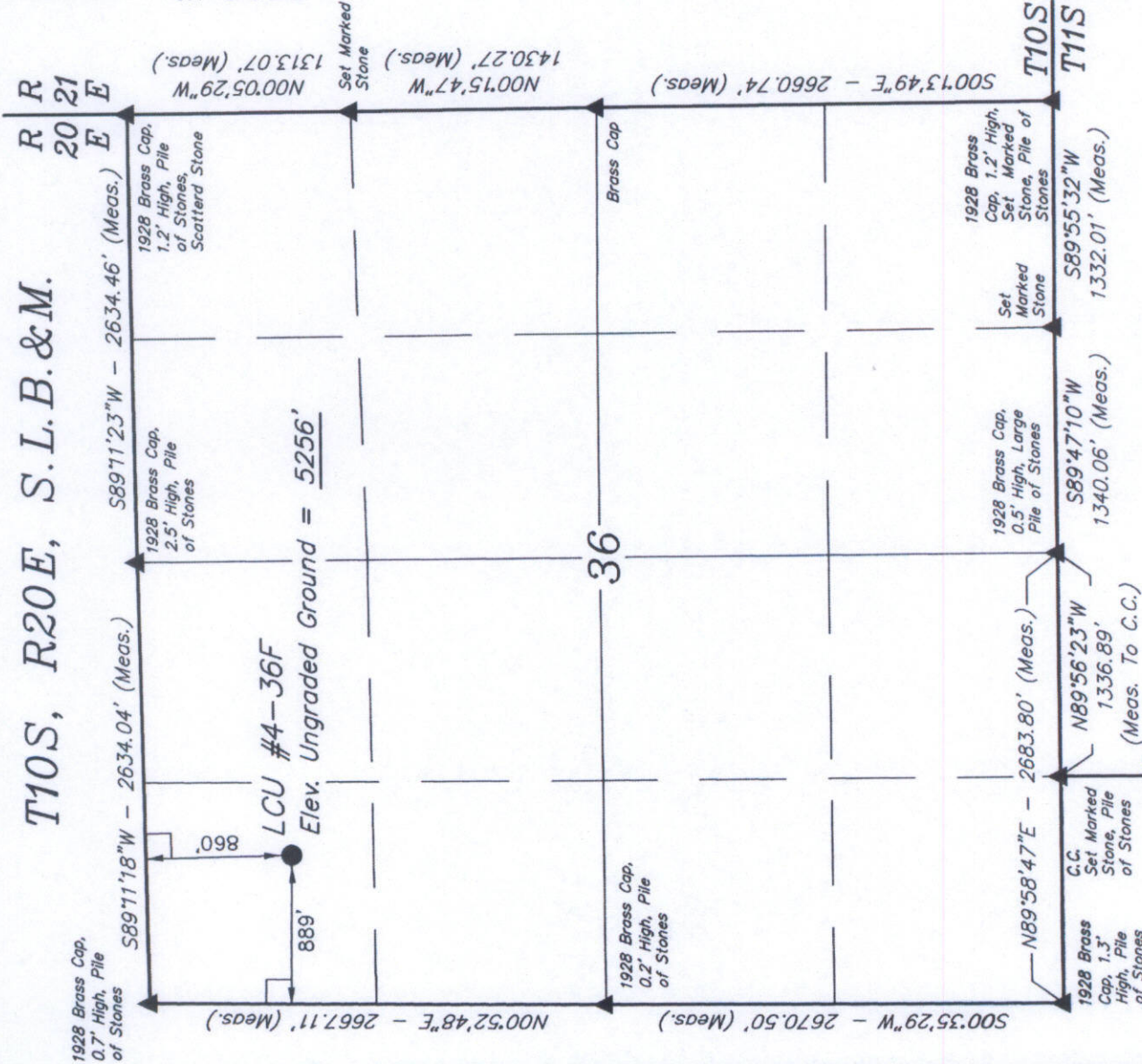
Well location, LCU #4-36F, located as shown in the NW 1/4 NW 1/4 of Section 36, T10S, R20E, S.L.B.&M., Uintah County Utah.

BASIS OF ELEVATION

SPOT ELEVATION AT THE SOUTHWEST CORNER OF SECTION 20, T10S, R20E, S.L.B.&M., TAKEN FROM THE BIG PACK MTN. NW, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5251 FEET.

BASIS OF BEARINGS

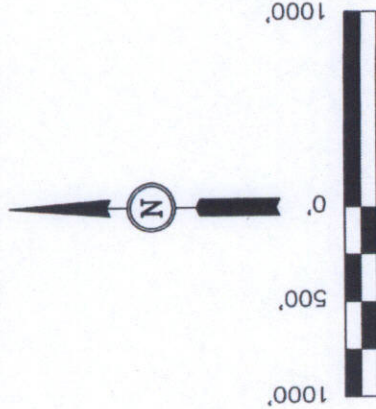
BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



LEGEND:

- = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

(NAD 83)
LATITUDE = 39°54'32.25" (39.908958)
LONGITUDE = 109°37'11.01" (109.619725)
(NAD 27)
LATITUDE = 39°54'32.38" (39.908994)
LONGITUDE = 109°37'08.53" (109.619036)



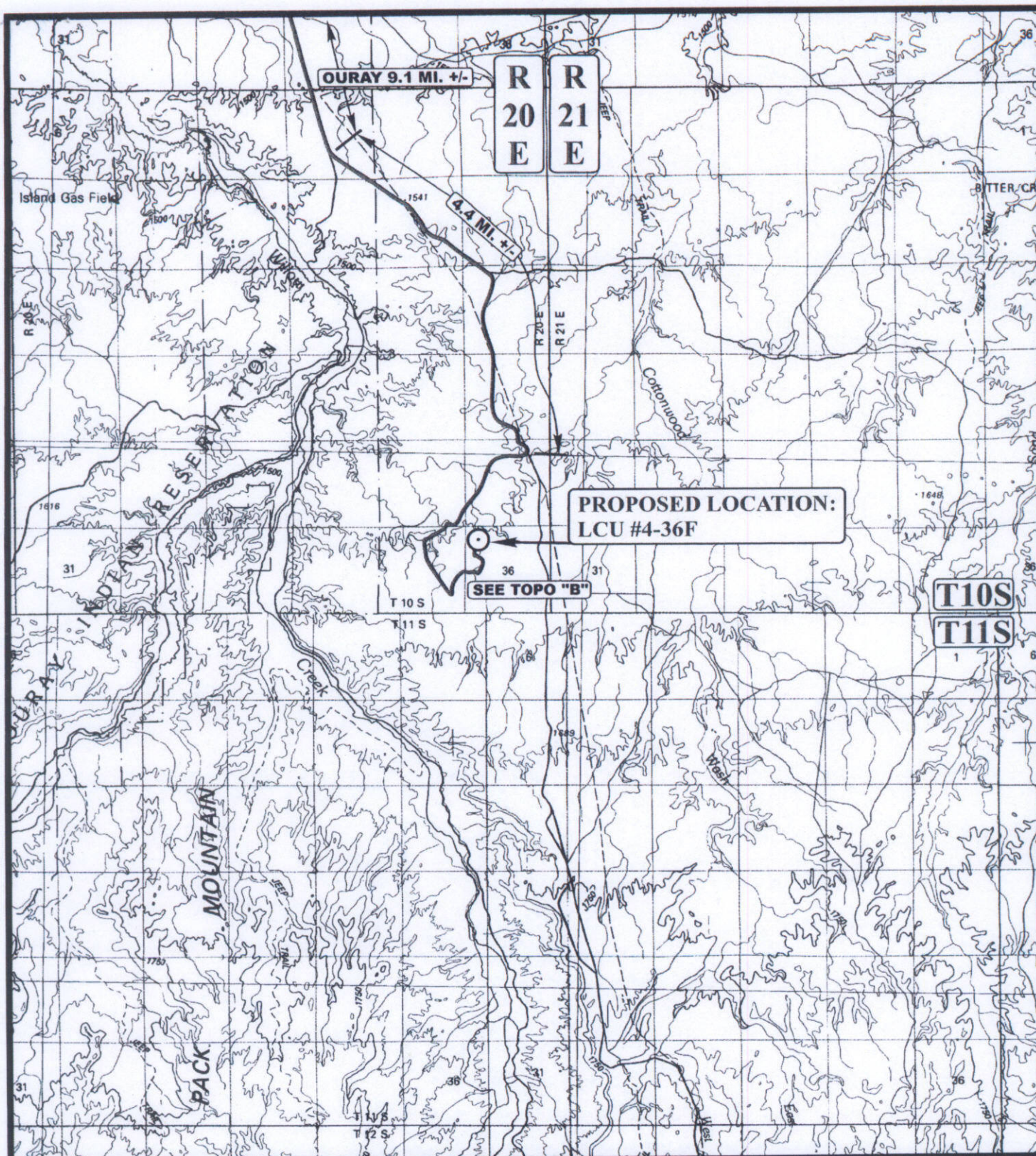
CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 181319
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 09-13-07	DATE DRAWN: 09-18-07
PARTY B.B. K.D. S.L.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE	XTO ENERGY, INC.



LEGEND:

⊙ PROPOSED LOCATION

XTO ENERGY, INC.

LCU #4-36F

SECTION 36, T10S, R20E, S.L.B.&M.

860' FNL 889' FWL

U&L
Uintah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC 09 14 07
 MAP MONTH DAY YEAR
 SCALE: 1:100,000 DRAWN BY: Z.L. REVISED: 00-00-00

A
 TOPO

EXHIBIT A

SURFACE USE PLAN

Name of Operator: XTO Energy Inc.

Address: 382 CR 3100
Aztec, NM 87410

Well Location: LCU 4-36F
Surface: 860' FNL & 889' FWL, NW/4 NW/4
Section 36, T10S, R20E, SLB&M, Uintah County, Utah

The surface owner or surface owner representative and dirt contractor will be provided with an approved copy of the surface use plan of operations and approved conditions of approve before initiating construction.

1. Existing Roads:

- a. The proposed access route to the location shown on the USGS quadrangle map (see Exhibit "A").
- b. The proposed well site is located approximately 12.78 miles southwest of Ouray, Utah.
- c. Proceed in a westerly direction from Vernal, Utah along U.S. Highway 40 for approximately 14.0 miles to the junction of State Highway 88. Exit left and proceed in a southerly direction for approximately 17.0 miles to Ouray, Utah. Proceed in a southerly direction for approximately 13.5 miles on the Seep Ridge Road to the junction of this road and an existing road to the southwest. Turn right and proceed in a southwesterly direction for approximately 1.8 miles to the junction of this road and an existing road to the south. Turn left and proceed in a southerly direction for approximately 0.25 miles to the junction of this road and an existing road to the southeast. Turn left and proceed in a southeasterly, then northeasterly direction for approximately 0.9 miles to the junction of this road and an existing road to the east. Proceed in an easterly direction for approximately 0.15 miles to the beginning of the proposed access for the #5-36F to the north. Follow the road flags in a northerly direction for approximately 0.2 miles to the #5-36F and the beginning of the proposed access to the northwest. Follow the road flags in a northwesterly then northeasterly direction for approximately 0.2 miles to the proposed location.
- d. All existing roads within a one (1) mile radius of the proposed well site are shown in Exhibit "B". If necessary, all existing roads that will be used for access to the proposed well location will be maintained to the current condition, or better, unless BLM or SITLA approval or consent is given to upgrade the existing road(s).
- e. The use of roads under State and County Road Department maintenance are necessary to access the Algers Pass Unit Area. However, an encroachment permit is not anticipated since no upgrades to the State or County Road system are proposed at this time.
- f. All existing roads will be maintained and kept in good repair during all phases of operation.

- g. Vehicle operators will obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions.
- h. Since no improvements are anticipated to the to the State, County, Tribal or BLM access roads, no topsoil stripping will occur.
- i. An off-lease federal Right-of-Way is not anticipated for the access road since access presently exists to the lease boundary.

2. Planned Access Roads:

- a. Location (centerline): From the proposed LCU 5-36F an access road is proposed trending north for approximately 0.2 miles to the proposed well site. The access consists of entirely new disturbance and crosses no significant drainages.
- b. The proposed access road will consist of a 24' travel surface within a 30' disturbed area.
- c. A road design plan is not anticipated at this time.
- d. SITLA approval to construct and utilize the proposed access road is requested with this application.
- e. No turnouts are proposed since adequate site distance exists in all directions.
- f. A maximum grade of 10% will be maintained throughout the project.
- g. No gates or cattle guards are anticipated at this time.
- h. Surface disturbance and vehicular travel will be limed to the approved location access road.
- i. Adequate drainage structures and culverts will be incorporated into the road where practical.
- j. No surfacing material will come from SITLA, Federal, or Tribal lands.
- k. All access roads and surface disturbing activities will conform to the standards outlined in the Bureau of Land Management and Forest Service Publication: Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development (Gold Book – Fourth Edition – Revised 2007).
- l. The operator will be responsible for all maintenance of the access roads, including any anticipated drainage structures.
- m. Other: See general information below.
 - If any additional Right-of-Way is necessary, no surface disturbing activities shall take place on the subject Right-of-Way until the associated APD is approved. The holder will adhere to conditions of approval in the Surface Use Program of the approved APD, relevant to any Right-of-Way facilities.
 - If a Right-of-Way is secured, boundary adjustments in the lease or unit shall automatically amend this Right-of-Way to include that portion of the facilities no longer contained within the lease or unit. In the event of an automatic amendment to this Right-of-Way grant, the prior on-

- If at any time the facilities located on public lands authorized by the terms of this lease are no longer included in the lease (due to a contraction in the unit or lease or unit boundary change) the BLM will process a change in authorization to the appropriate statute. The authorization will be subject to appropriate rental, or other financial obligations as determined by the BLM.
- If the well is productive, the access road will be rehabilitated as needed and brought to Resource (Class II) Road Standards within a time period specified by SITLA or the BLM. If upgraded, the access road must be maintained at these standards until the well is properly abandoned. If this time frame cannot be met, the Field Office Manager will be notified so that temporary drainage control can be installed along the access road.

3. Location of Existing Wells:

- a. All wells in a one (1) mile radius are shown within Exhibit "C".

4. Location of Existing and or Proposed Production Facilities:

- a. On-site facilities: Typical on-site facilities will consist of a wellhead, flowlines (typically 3" dia.), artificial lifting system (if necessary), wellhead compression (if necessary), gas/oil/water separator (3 phase), gas measurement and water measurement equipment, and a heated enclosure/building for weather and environmental protection. The tank battery will typically be constructed and surrounded by a berm of sufficient capacity to contain 1 ½ times the storage capacity of the largest tank. The tanks typically necessary for the production of this well will be 1 – 300 bbl steel, above ground tank for oil/condensate and 1 – 300 bbl steel, above ground tank for produced water. All loading lines and valves for these tanks will be placed inside the berm surrounding the tank battery.
- All oil/condensate production and measurement shall conform to the provision of 43 CFR 3162.7 and Onshore Oil and Gas Order No. 4, if applicable. Other on-site equipment and systems may include methanol injection and winter weather protection.
 - All permanent (in place for six (6) months or longer) structures constructed or installed on the well site location will be painted a flat, non-reflective color, matching the ground and not sky, slightly darker than the adjacent landscape, as specified by the COA's in the approved APD. All facilities will be painted within six (6) months of installation. Facilities required to comply with the Occupations Safety and Health Act (OSHA) may be excluded.
 - Site security guidelines identified in 43 CFR 3163.7-5 and Onshore Oil and Gas Order No. 3 will be adhered to.
- b. Off- site facilities: None.

- c. A gas meter run will be constructed and located on lease within 500 feet of the well head. Meter runs will be housed and/or fenced. All gas production and measurement shall comply with the provisions of 43 CFR 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3.
- d. A tank battery will be constructed on this lease; it will be surrounded by a dike of sufficient capacity to contain the storage capacity of the largest tank. All loading lines and valves will be placed inside the berm surrounding the tank battery. All liquid hydrocarbons production and measurement shall conform to the provisions of 43 CFR 3162.7-3 and Onshore Oil and Gas Order No. 4 and Onshore Oil and Gas Order No. 5 for natural gas production and measurement.
- e. The site will require periodic maintenance to ensure that drainages are kept open and free of debris, ice, and snow, and that surfaces are properly treated to reduce erosion, fugitive dust, and impacts to adjacent areas.
- f. A pipeline corridor containing a single steel gas pipeline and a single steel or poly water pipeline is associated with this application and is being applied for at this time. The proposed pipeline corridor will leave the southwest side of the well site and traverse 948' south to the permitted LCU 5-36F pipeline corridor (see Exhibit "D").
- g. The gas pipeline will be a 12" or less buried line and water pipeline will be 12" or less buried line within a 75' wide disturbed pipeline corridor. The use of the proposed well site and access roads will facilitate as the staging area for the pipeline corridor construction. A new buried pipeline corridor length of approximately 948' is associated with this well.
- h. An existing pipeline corridor upgrade is proposed from the permitted LCU 5-36F tie-in location to the LCU compressor facility along the existing pipeline route.
- i. The gas pipeline will be a 12" or less buried line and the water pipeline will be a 12" or less buried line within a single trench and within a 75' wide disturbed pipeline corridor. The use of the existing well site and access roads will facilitate the staging of the pipeline corridor upgrade. An upgrade to a 75' wide buried pipeline corridor of approximately 1.2 miles is associated with this application.
- j. The proposed pipeline and pipeline upgrade are contained within SITLA surface.
- k. XTO Energy Inc. intends to bury the pipeline where possible and connect the pipeline together utilizing conventional welding technology.

5. Location and Type of Water Supply:

- a. No water supply pipeline will be laid for this well.
- b. No water well will be drilled for this well.
- c. Drilling water for this well will be hauled on the road(s) shown in Exhibit "B".
- d. Water will be hauled from one of the following sources:
 - Water Permit #43-10447, Section 33, T8S, R20E;
 - Water Permit # 43-2189, Section 33, T8S, R20E;
 - Water Permit # 49-2158, Section 33, T8S, R20E;
 - Water Permit # 49-2262, Section 33, T8S, R20E;

- Water Permit # 49-1645, Section 5, T9S, R22E;
- Water Permit # 49-9077, Section 32, T6S, R20E;
- Tribal Resolution 06-183, Section 22, T10S, R20E.

6. Source of Construction Material:

- a. The use of materials will conform to 43 CFR 3610.2-3.
- b. No construction materials will be removed from SITLA, Ute Tribal or BLM Lands.
- c. If any gravel is used, it will be obtained from a state approved gravel pit.

7. Methods of Handling Waste:

- a. All wastes associated with this application will be contained and disposed of utilizing approved facilities.
- b. Drill cuttings will be contained and buried on site.
- c. The reserve pit will be located outboard of the location and along the east side of the pad.
- d. The reserve pit will be constructed so as not to leak, breach, or allow for any discharge.
- e. The reserve pit will be lined with a 20 ml minimum thickness plastic nylon reinforced liner material. The liner will overlay a felt liner pad only if rock is encountered during excavation. The pit liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash, scrap pipe etc., that could puncture the liner will be disposed of in the pit. The pit walls will be sloped not greater than 2:1. A minimum 2-foot of freeboard will be maintained in the pit at all times during the drilling and completion operations.
- f. The reserve pit has been located in cut material. Three sides of the reserve pit will be fenced before drilling starts. The fourth side will be fenced and a bird net installed as soon as drilling is completed, and shall remain until the pit is dry. After the reserve pit has dried, all areas not needed for production will be rehabilitated.
- g. No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completion of the well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completion of the well.
- h. Trash will be contained in a trash cage and hauled away to an approved disposal site as necessary but no later than at the completion of drilling operations. The contents of the trash container will be hauled off periodically to the approved Uintah County Landfill near Vernal, Utah.

- i. Produced fluids from the well other than water will be produced into a test tank until such time as the construction of the production facilities is complete. Any spills of oil, gas, salt water or other produced fluids will be cleaned up and removed.
- j. After initial clean-up, a 400 bbl tank will be installed to contain produced waste water. This water will be transported from the tank to an approved XTO Energy Inc. disposal well for proper disposal.
- k. Produced water from the production well will be disposed of at the RBU 13-11F or RBU 16-19F disposal wells in accordance with Onshore Order No. 7.
- l. Any salts and/or chemical, which are an integral part of the drilling system, will be disposed of in the same manner as the drilling fluid.
- m. Sanitary facilities will be onsite at all times during operations. Sewage will be placed in a portable chemical toilet and the toilet replaced periodically utilizing a licensed contractor to transport by truck the portable chemical toilet so that its contents can be delivered to the Vernal Wastewater Treatment Facility in accordance with state and county regulations.

8. Ancillary Facilities:

- a. Garbage containers and portable toilets are the only ancillary facilities proposed in this application.
- b. No camps, airstrips or staging areas are proposed with this application.

9. Well Site Layout: (See Exhibit "E")

- a. The well will be properly identified in accordance with 43 CFR 3162.6.
- b. Access to the well pad will be from the south.
- c. The pad and road designs are consistent with BLM and SITLA specifications.
- d. A pre-construction meeting with responsible company representatives, contractors, and SITLA will be conducted at the project site prior to commencement of surface disturbing activities. The pad and road will be construction staked prior to this meeting.
- e. The pad has been staked at its maximum size; however, it will be constructed smaller, if possible, depending on rig availability. Should the layout change, this application will be amended and approved utilizing a sundry notice.
- f. All surface disturbing activities will be supervised by a qualified, responsible company representative who is aware of the terms and conditions of the APD and specification in the approved plans.
- g. All cut and fill slopes will be such that stability can be maintained for the life of the activity.
- h. Diversion ditches will be constructed and storm water BMP's installed around the well site to prevent surface water from entering the well site.

- i. The site surface will be graded to drain away from the pit to avoid pit spillage during large storm events.
- j. The reserve pit will be properly fenced and a bird net installed to prevent any livestock, wildlife or migratory bird entry, and will remain so until site clean-up.
- k. All access roads will be maintained as necessary to prevent erosion and accommodate year-round traffic. The road will be maintained in a safe and useable condition.
- l. The stockpiled topsoil (first 6 inches or maximum available) will be stored in a windrow on the uphill side of the location to prevent possible contamination. All topsoil will be stockpiled for reclamation in such a way as to prevent soil loss and/or contamination.
- m. The blooie line will be located at least 100 feet from the well head.
- n. Water injection may be implemented if necessary to minimize the amount of fugitive dust.

10. Plans for Restoration of the Surface (Interim Reclamation and Final Reclamation):

- a. Site reclamation for the production well will be accomplished for the portions of the site not required for the continued operation of the well.
- b. Upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1. Once the reserve pit is dry, the plastic nylon liner shall be torn and perforated before backfilling of the reserve pit. The reserve pit and that torn portion of the location not needed for production facilities/operations will be re-contoured to match the appropriate natural contours of the area.
- c. Following the BLM published Best Management Practices and per the signed 2009 Reclamation Plan, the interim reclamation will be completed within 90 days of well completion or 120 days of wells spud (weather permitting) to reestablish vegetation, reduce dust and erosion and compliment the visual resources of the area.
 - All equipment and debris will be removed from the area proposed for interim reclamation and the pit area will be backfilled and re-contoured to match the surrounding topography.
 - The area outside the rig anchors and other disturbed areas not needed for the operation of the well will be re-contoured to blend in with the surrounding topography and reseeded as prescribed by SITLA.
 - Reclaimed areas receiving incidental disturbance during the life of the producing well will be re-contoured and reseeded as soon as practical.
- d. The operator will control noxious weeds along the access road use authorizations, pipeline route authorizations, well sites, or other applicable facilities by spraying or mechanical removal. A list of noxious weeds may be obtained from the SITLA or the appropriate County Extension Office. On SITLA administered land, it is required that a Pesticide Use Proposal be submitted and approved prior to the application of herbicides, pesticides or other possibly hazardous chemicals.

- e. Prior to final abandonment of the site, all disturbed areas, including access roads will be scarified and left with a rough surface. The site will then be reseeded and/or planted as prescribed by SITLA. A SITLA recommended seed mix will be detailed within their approval documents.

11. Surface and Mineral Ownership:

- a. Surface Ownership – State of Utah – under the management of the SITLA – State Office, 675 East 500 South, Salt Lake City, Utah 84102; 801-538-5100.
- b. Surface Ownership – State of Utah – under the management of the SITLA – State Office, 675 East 500 South, Salt Lake City, Utah 84102; 801-538-5100.

12. Other Information:

- a. AIA Archaeological conducted a Class III archeological survey. A copy of the report was submitted under separate cover to the appropriate agencies with the first filing of this proposed APD
- b. Alden Hamblin conducted a paleontological survey. A copy of the original report was submitted under separate cover to the appropriate agencies with the first filing of this proposed APD.

XTO ENERGY, INC.
LCU #4-36F
LOCATED IN UINTAH COUNTY, UTAH
SECTION 36, T10S, R20E, S.L.B.&M.

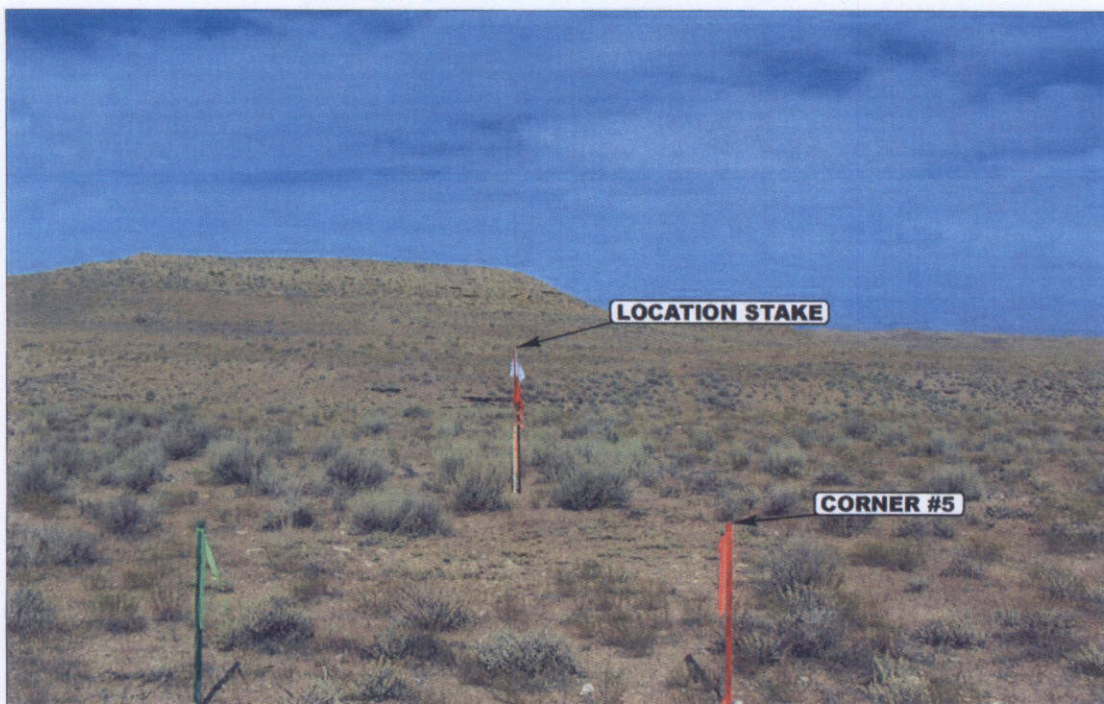


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: NORTHERLY



UELS

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
435-789-1017 uels@uelsinc.com

LOCATION PHOTOS

09 14 07
MONTH DAY YEAR

PHOTO

TAKEN BY: B.B.

DRAWN BY: Z.L.

REVISED: 00-00-00

XTO ENERGY, INC.
LCU #4-36F
SECTION 36, T10S, R20E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 13.5 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 1.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 0.25 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 0.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.15 MILES TO THE BEGINNING OF THE PROPOSED ACCESS FOR THE #5-36F TO THE NORTH; FOLLOW ROAD FLAGS IN A NORTHERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE #5-36F AND THE BEGINNING OF PROPOSED ACCESS TO THE NORTHWEST; FOLLOW ROAD FLAGS IN A NORTHWESTERLY THEN NORTHEASTERLY DIRECTION APPORXIMATELY 0.2 MILES TO PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 48.0 MILES.

XTO ENERGY, INC.

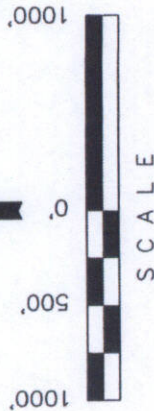
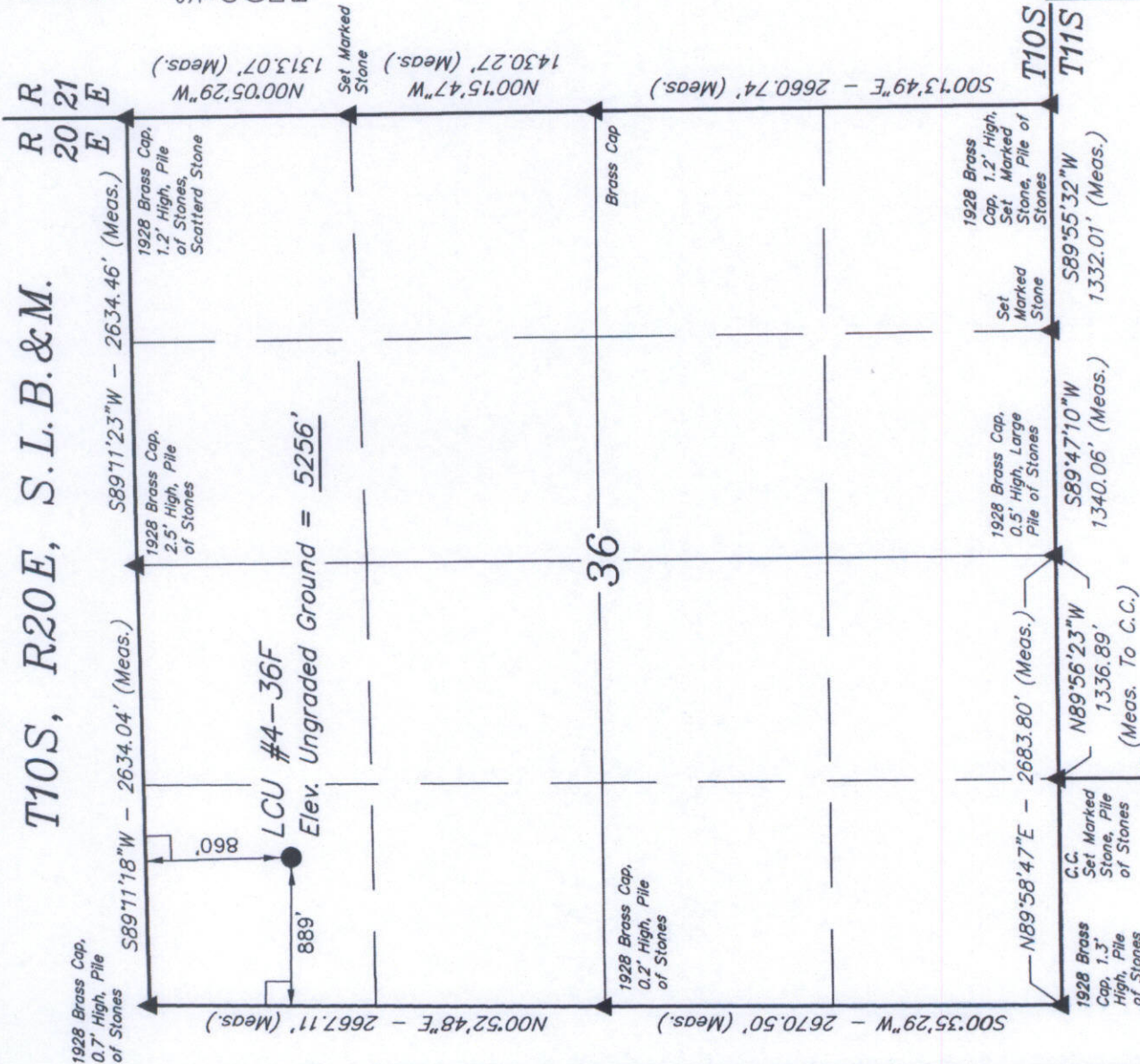
Well location, LCU #4-36F, located as shown in the NW 1/4 NW 1/4 of Section 36, T10S, R20E, S.L.B.&M., Uintah County Utah.

BASIS OF ELEVATION

SPOT ELEVATION AT THE SOUTHWEST CORNER OF SECTION 20, T10S, R20E, S.L.B.&M., TAKEN FROM THE BIG PACK MTN. NW, QUADRANGLE, UTAH, UTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5251 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 181319
STATE OF UTAH

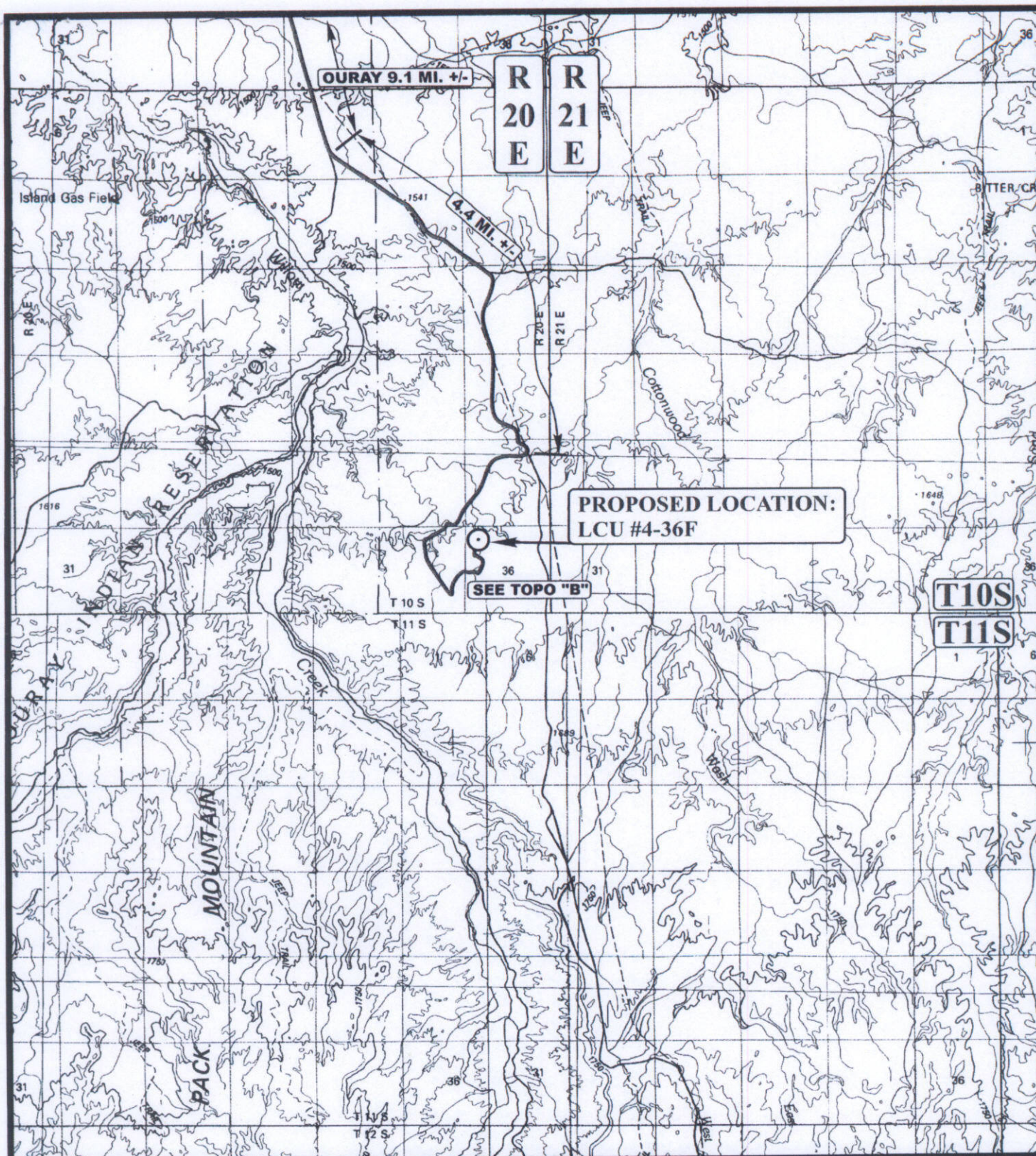
UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 09-13-07	DATE DRAWN: 09-18-07
PARTY B.B. K.D. S.L.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE	XTO ENERGY, INC.

LEGEND:

- = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

(NAD 83)
LATITUDE = 39°54'32.25" (39.908958)
LONGITUDE = 109°37'11.01" (109.619725)
(NAD 27)
LATITUDE = 39°54'32.38" (39.908994)
LONGITUDE = 109°37'08.53" (109.619036)



LEGEND:

⊙ PROPOSED LOCATION

XTO ENERGY, INC.

LCU #4-36F

SECTION 36, T10S, R20E, S.L.B.&M.

860' FNL 889' FWL



Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813



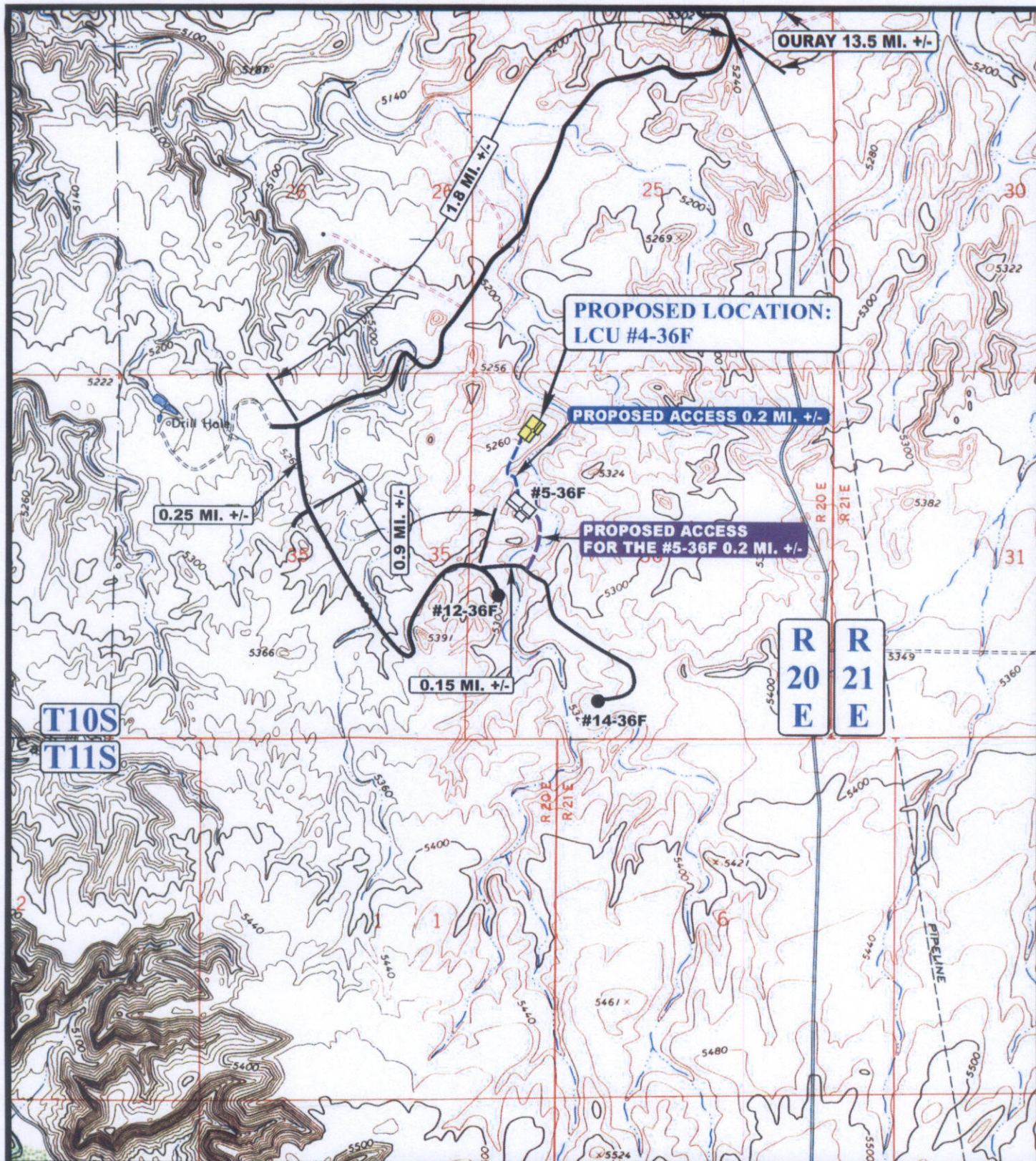
TOPOGRAPHIC
MAP

09 **14** **07**
MONTH DAY YEAR

SCALE: 1:100,000 DRAWN BY: Z.L. REVISED: 00-00-00

A
TOPO

EXHIBIT A



LEGEND:

— EXISTING ROAD
 - - - - - PROPOSED ACCESS ROAD

N

XTO ENERGY, INC.

LCU #4-36F
SECTION 36, T10S, R20E, S.L.B.&M.
860' FNL 889' FWL

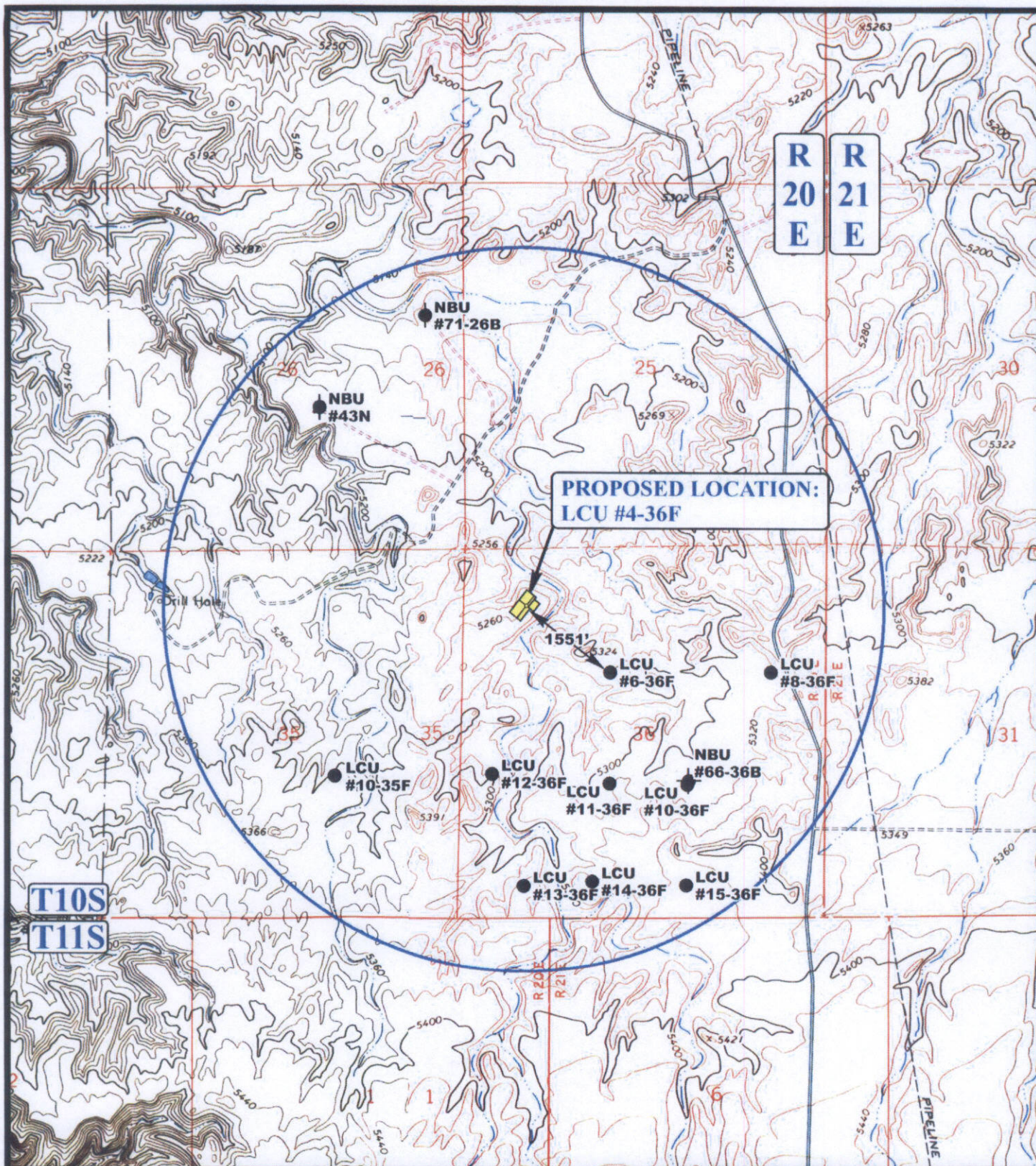


Utah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP **09 14 07**
 MONTH DAY YEAR
 SCALE: 1" = 2000' DRAWN BY: Z.L. REVISED: 00-00-00

B
 TOPO

EXHIBIT B

**LEGEND:**

- | | |
|-------------------|-------------------------|
| ⊗ DISPOSAL WELLS | ⊗ WATER WELLS |
| ● PRODUCING WELLS | ● ABANDONED WELLS |
| ● SHUT IN WELLS | ● TEMPORARILY ABANDONED |



Utah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
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XTO ENERGY, INC.

LCU #4-36F
SECTION 36, T10S, R20E, S.L.B.&M.
860' FNL 889' FWL

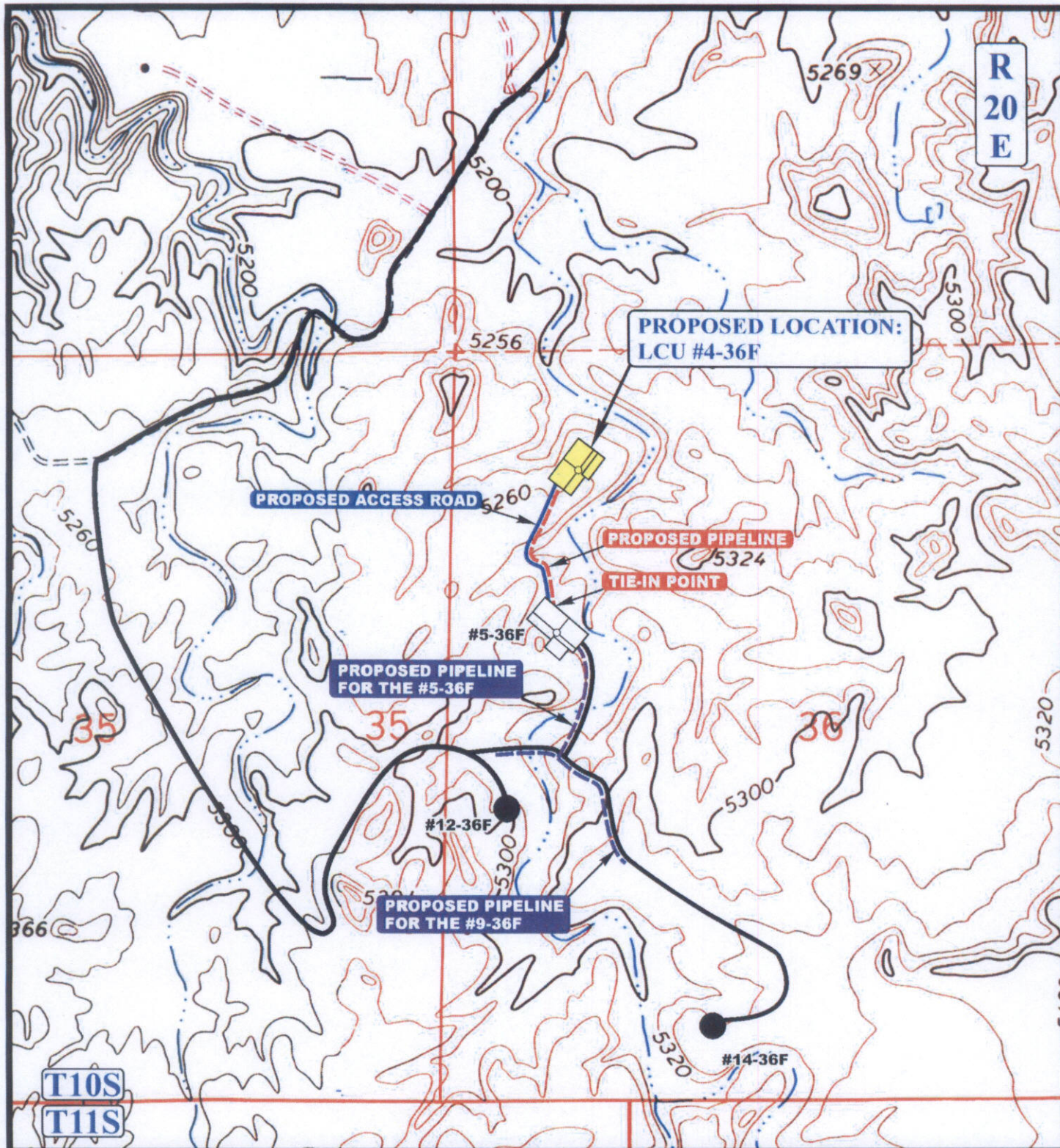
TOPOGRAPHIC
MAP

09 14 07
 MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: Z.L. REVISED: 00-00-00



EXHIBIT C



APPROXIMATE TOTAL PIPELINE DISTANCE = 948' +/-

LEGEND:

- PROPOSED ACCESS ROAD
- - - - - PROPOSED PIPELINE
- - - - - PROPOSED PIPELINE (SERVICING OTHER WELLS)

XTO ENERGY, INC.

LCU #4-36F
SECTION 36, T10S, R20E, S.L.B.&M.
860' FNL 889' FWL



Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813



TOPOGRAPHIC MAP **09 14 07**
MONTH DAY YEAR
SCALE: 1" = 1000' DRAWN BY: Z.L. REVISED: 00-00-00



EXHIBIT D

XTO ENERGY, INC.**TYPICAL CROSS SECTIONS FOR**

LCU #4-36F

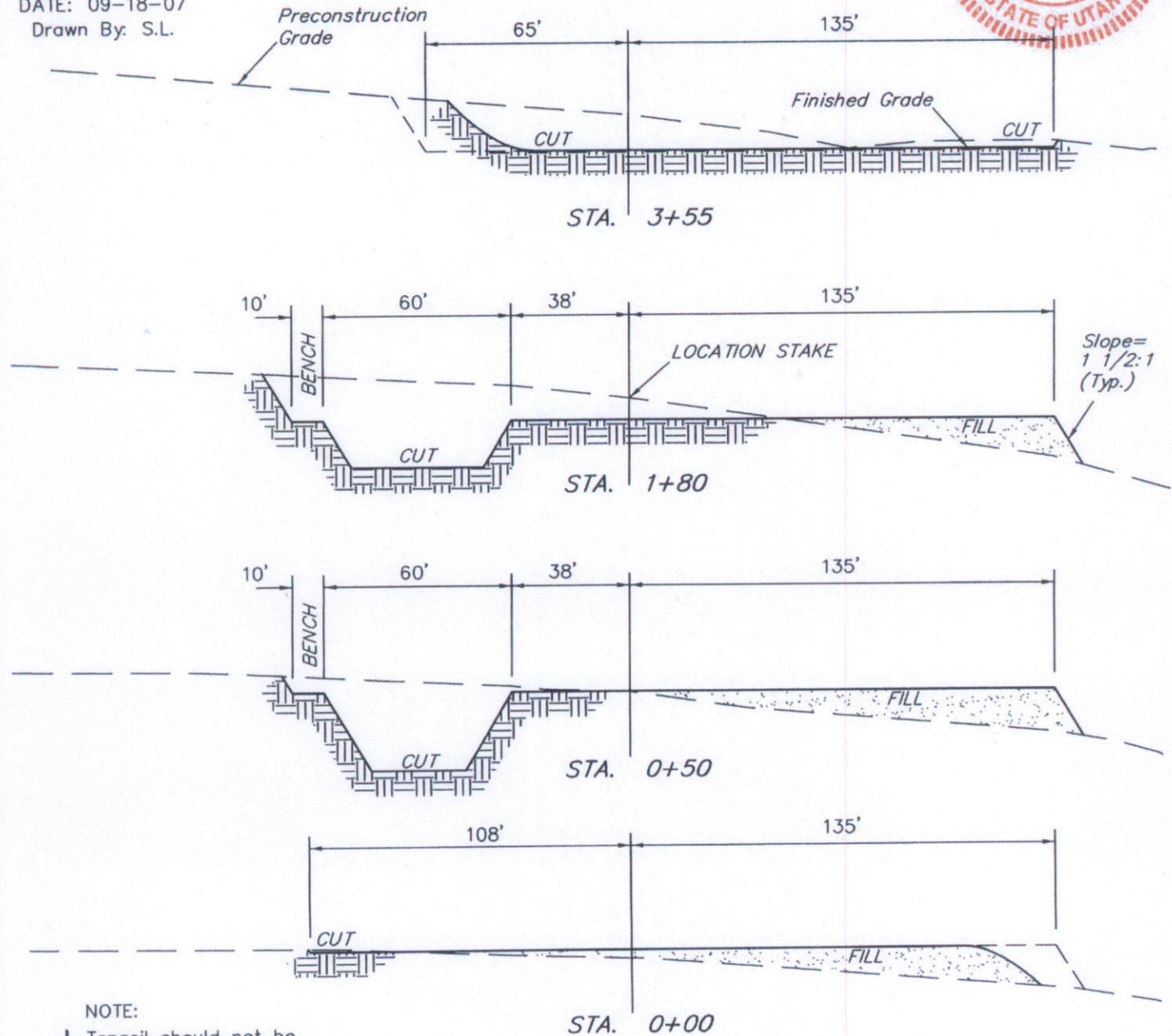
SECTION 36, T10S, R20E, S.L.B.&M.

860' FNL 889' FWL



1" = 20'
X-Section
Scale
1" = 50'

DATE: 09-18-07
Drawn By: S.L.

**NOTE:**

Topsoil should not be
Stripped Below Finished
Grade on Substructure Area.

*** NOTE:**

FILL QUANTITY INCLUDES
5% FOR COMPACTION

APPROXIMATE YARDAGES**CUT**

(6") Topsoil Stripping = 1,690 Cu. Yds.

Remaining Location = 6,760 Cu. Yds.

TOTAL CUT = 8,450 CU.YDS.

FILL = 5,350 CU.YDS.

EXCESS MATERIAL = 3,100 Cu. Yds.

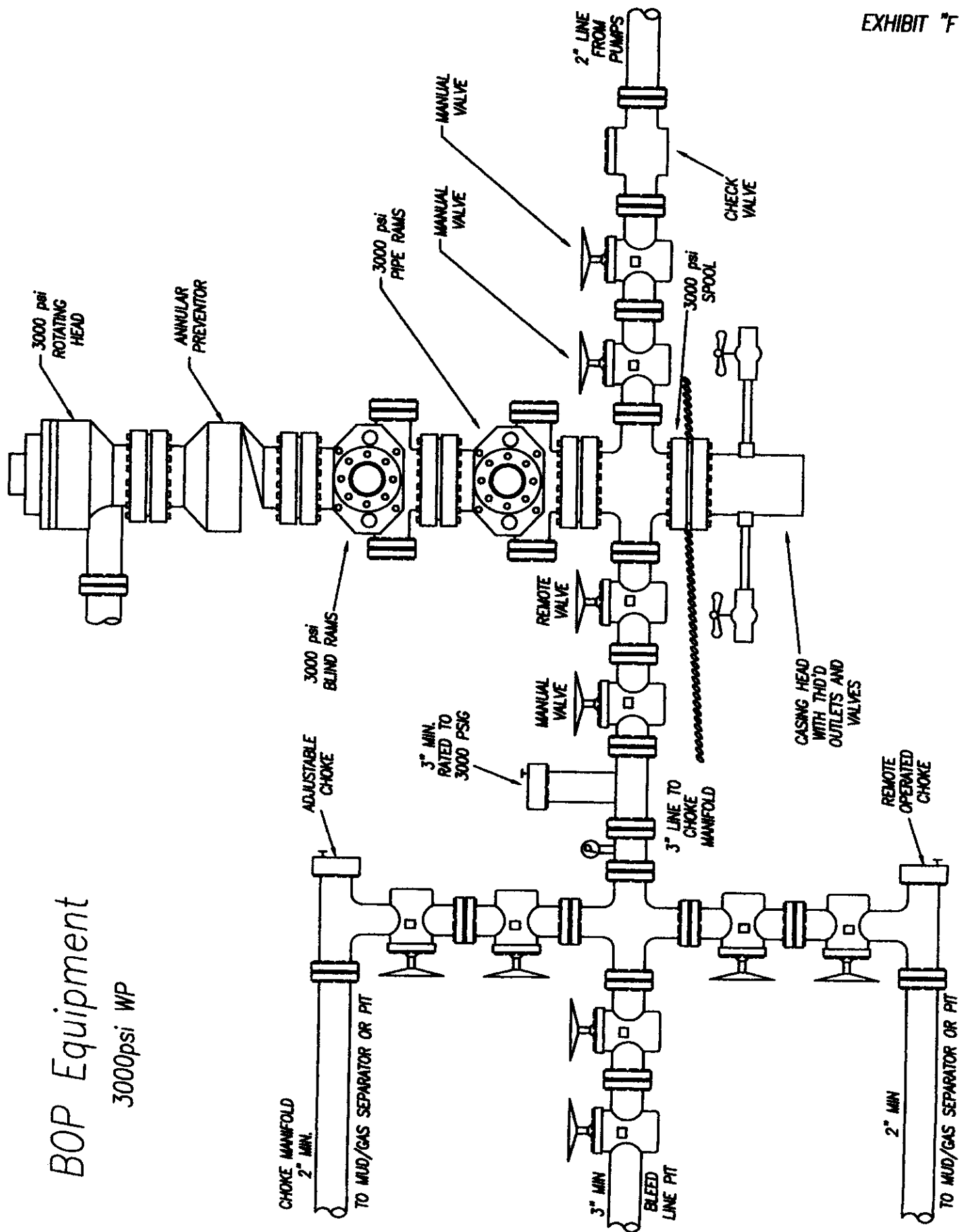
Topsoil & Pit Backfill = 3,100 Cu. Yds.
(1/2 Pit Vol.)

EXCESS UNBALANCE = 0 Cu. Yds.
(After Interim Rehabilitation)

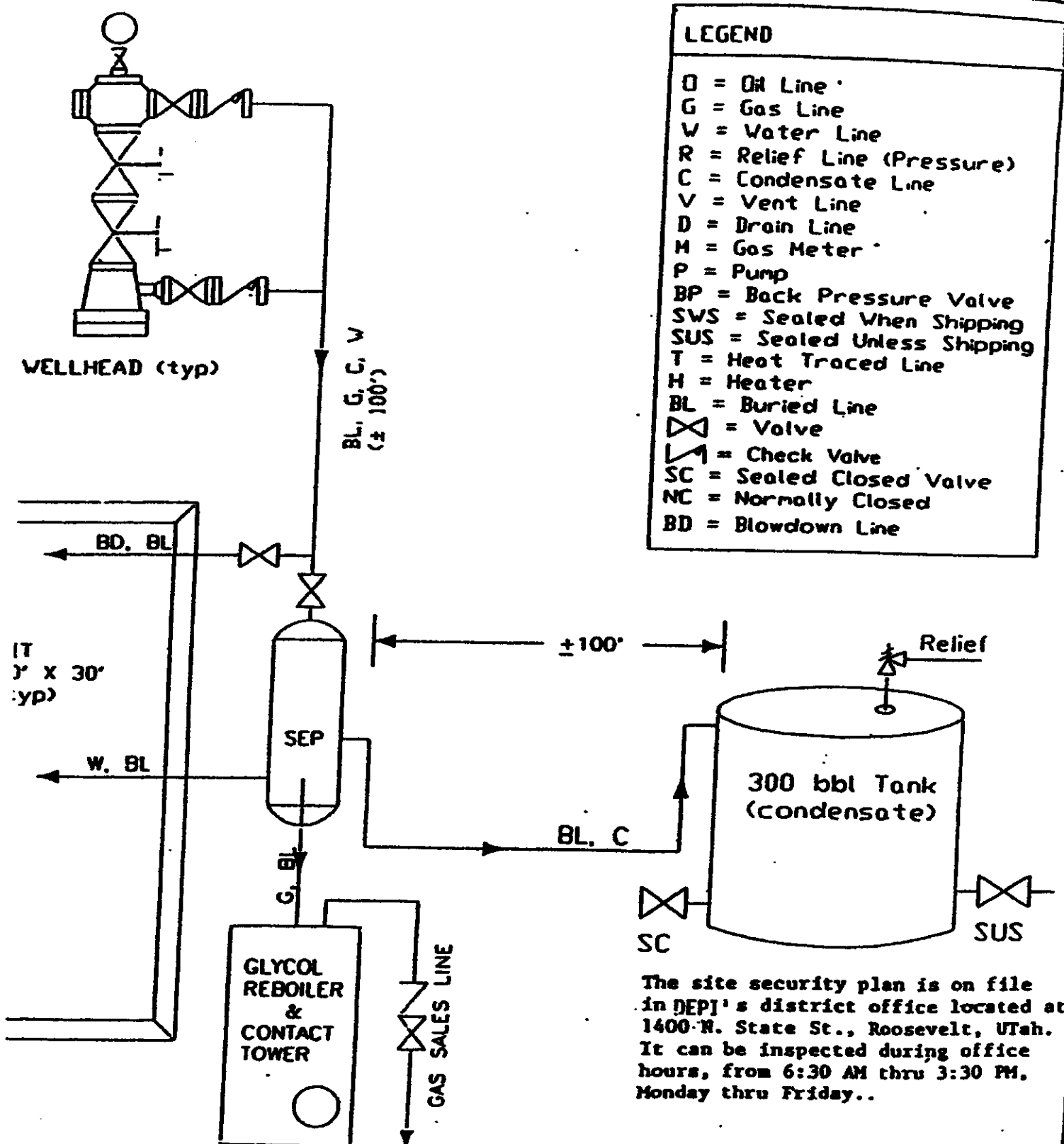
UINTAH ENGINEERING & LAND SURVEYING

85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

EXHIBIT "F"



BOP Equipment
3000psi WP



The site security plan is on file in DEP's district office located at 1400 N. State St., Roosevelt, Utah. It can be inspected during office hours, from 6:30 AM thru 3:30 PM, Monday thru Friday..

Operator Certification:

a. Permitting and Compliance:

Krista Wilson
Permitting Tech.
XTO Energy Inc.
382 CR 3100
Aztec NM 87410
505-333-3100

b. Drilling and Completions:

Justin Niederhofer
XTO Energy Inc.
382 CR 3100
Aztec, NM 87410
505-333-3100

c. Certification:

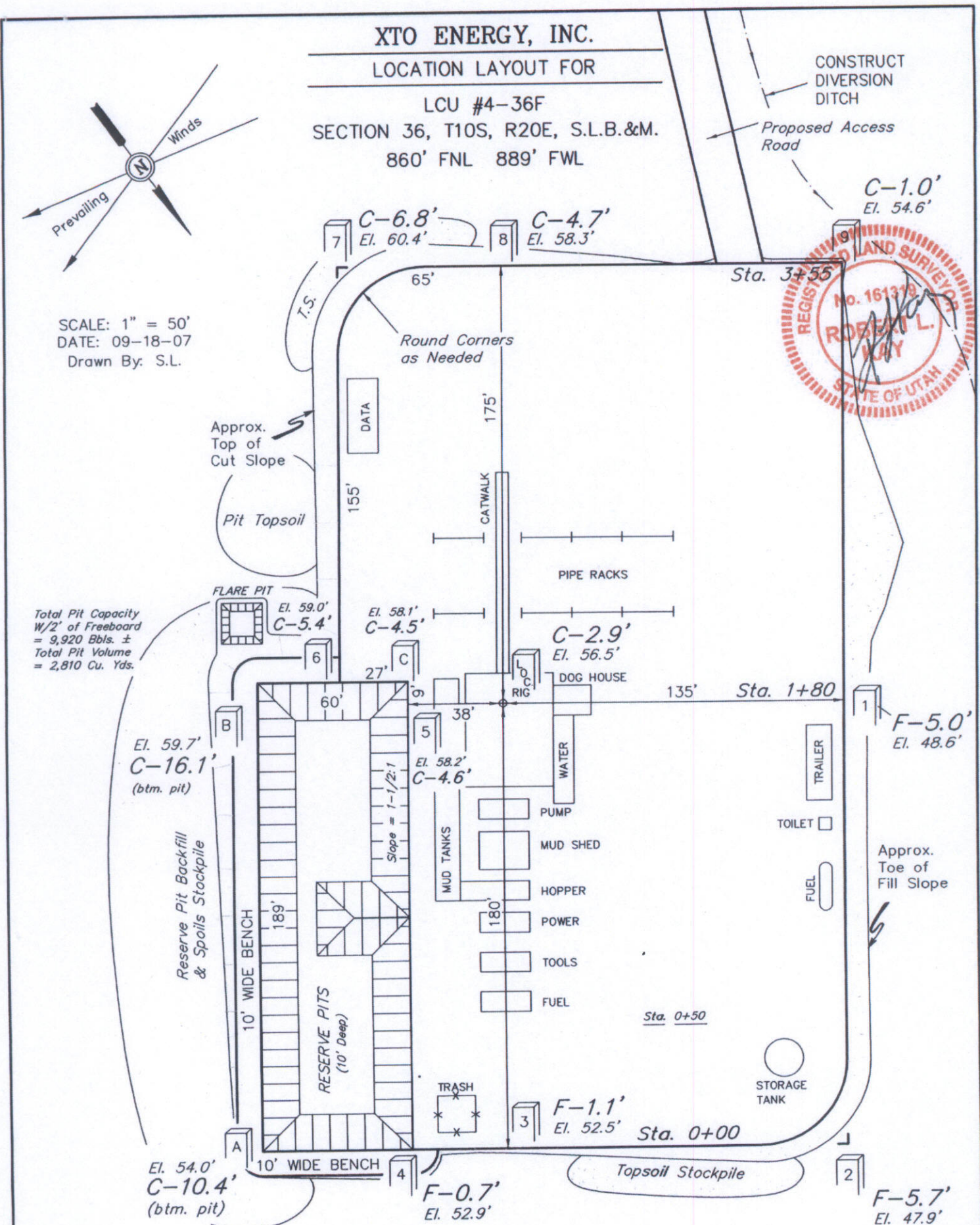
I hereby certify that, I or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or XTO Energy Inc., are responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 7th day of October, 2011.

Signature: _____



Krista Wilson



Elev. Ungraded Ground at Location Stake = 5256.5'
Elev. Graded Ground at Location Stake = 5253.6'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

EXHIBIT F

XTO ENERGY, INC.**TYPICAL CROSS SECTIONS FOR**

LCU #4-36F

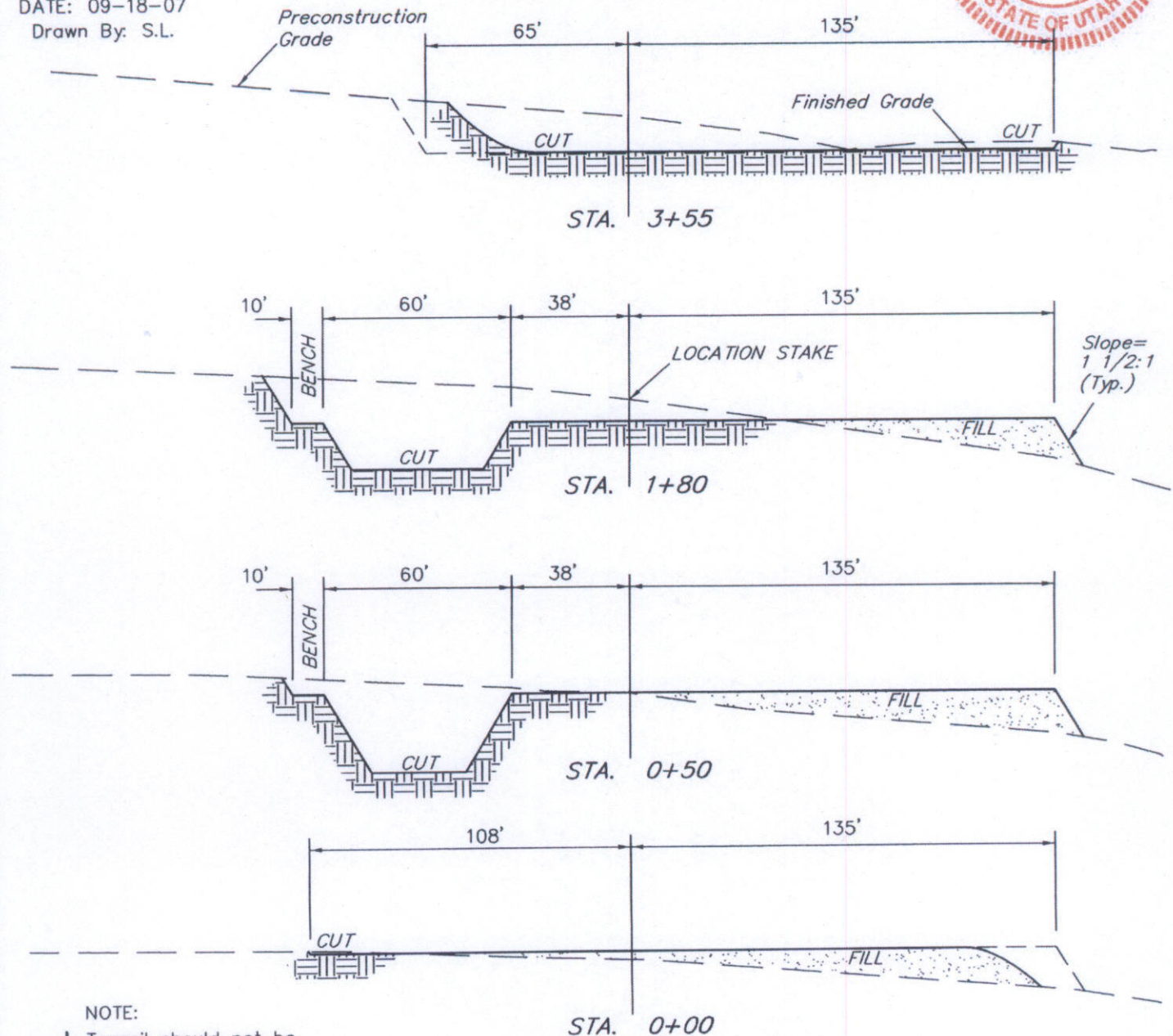
SECTION 36, T10S, R20E, S.L.B.&M.

860' FNL 889' FWL



1" = 20'
X-Section
Scale
1" = 50'

DATE: 09-18-07
Drawn By: S.L.

**NOTE:**

Topsoil should not be
Stripped Below Finished
Grade on Substructure Area.

*** NOTE:**

FILL QUANTITY INCLUDES
5% FOR COMPACTION

APPROXIMATE YARDAGES**CUT**

(6") Topsoil Stripping = 1,690 Cu. Yds.

Remaining Location = 6,760 Cu. Yds.

TOTAL CUT = 8,450 CU.YDS.

FILL = 5,350 CU.YDS.

EXCESS MATERIAL = 3,100 Cu. Yds.

Topsoil & Pit Backfill = 3,100 Cu. Yds.
(1/2 Pit Vol.)

EXCESS UNBALANCE = 0 Cu. Yds.
(After Interim Rehabilitation)

UINTAH ENGINEERING & LAND SURVEYING

85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

October 21, 2011

Memorandum

To: Assistant District Manager Minerals, Vernal District
From: Michael Coulthard, Petroleum Engineer
Subject: 2011 Plan of Development Little Canyon Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2011 within the Little Canyon Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ Wasatch/MesaVerde)		
43-047-52102	LCU 16-36F Sec 36 T10S R20E 0815 FSL 0471 FEL	
43-047-52103	LCU 2-2H Sec 02 T11S R20E 2022 FNL 1954 FEL BHL Sec 02 T11S R20E 0724 FNL 2024 FEL	
43-047-52104	LCU 4-2H Sec 02 T11S R20E 1352 FNL 1891 FWL BHL Sec 02 T11S R20E 0725 FNL 0759 FWL	
43-047-52106	LCU 7-36F Sec 36 T10S R20E 1991 FNL 2059 FEL	
43-047-52107	LCU 1-36F Sec 36 T10S R20E 0782 FNL 0823 FEL	
43-047-52108	LCU 2-36F Sec 36 T10S R20E 0577 FNL 2112 FEL	
43-047-52109	LCU 4-36F Sec 36 T10S R20E 0860 FNL 0889 FWL	

This office has no objection to permitting the wells at this time.

Michael L. Coulthard

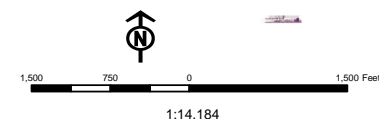
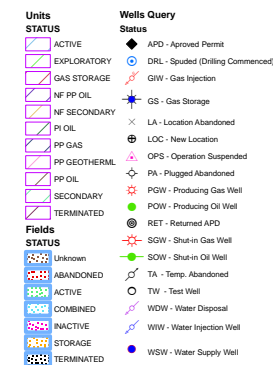
Digitally signed by Michael L. Coulthard
DN: cn=Michael L. Coulthard, o=Bureau of Land Management,
ou=Branch of Minerals, email=Michael_Coulthard@blm.gov, c=US
Date: 2011.10.21 15:17:02 -06'00'

RECEIVED: October 25, 2011

bcc: File - Little Canyon Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:10-21-11

Map Produced by Diana Mason



Well Name	XTO ENERGY INC LCU 4-36F 43047521090000			
String	Surf	Prod		
Casing Size(in)	9.625	5.500		
Setting Depth (TVD)	2200	9030		
Previous Shoe Setting Depth (TVD)	0	2200		
Max Mud Weight (ppg)	8.4	9.2		
BOPE Proposed (psi)	0	3000		
Casing Internal Yield (psi)	3520	7740		
Operators Max Anticipated Pressure (psi)	4600	9.8		

Calculations	Surf String	9.625	"	
Max BHP (psi)	.052*Setting Depth*MW=	961		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	697	NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	477	NO	Reasonable depth
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	477	NO	
Required Casing/BOPE Test Pressure=		2200	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient	

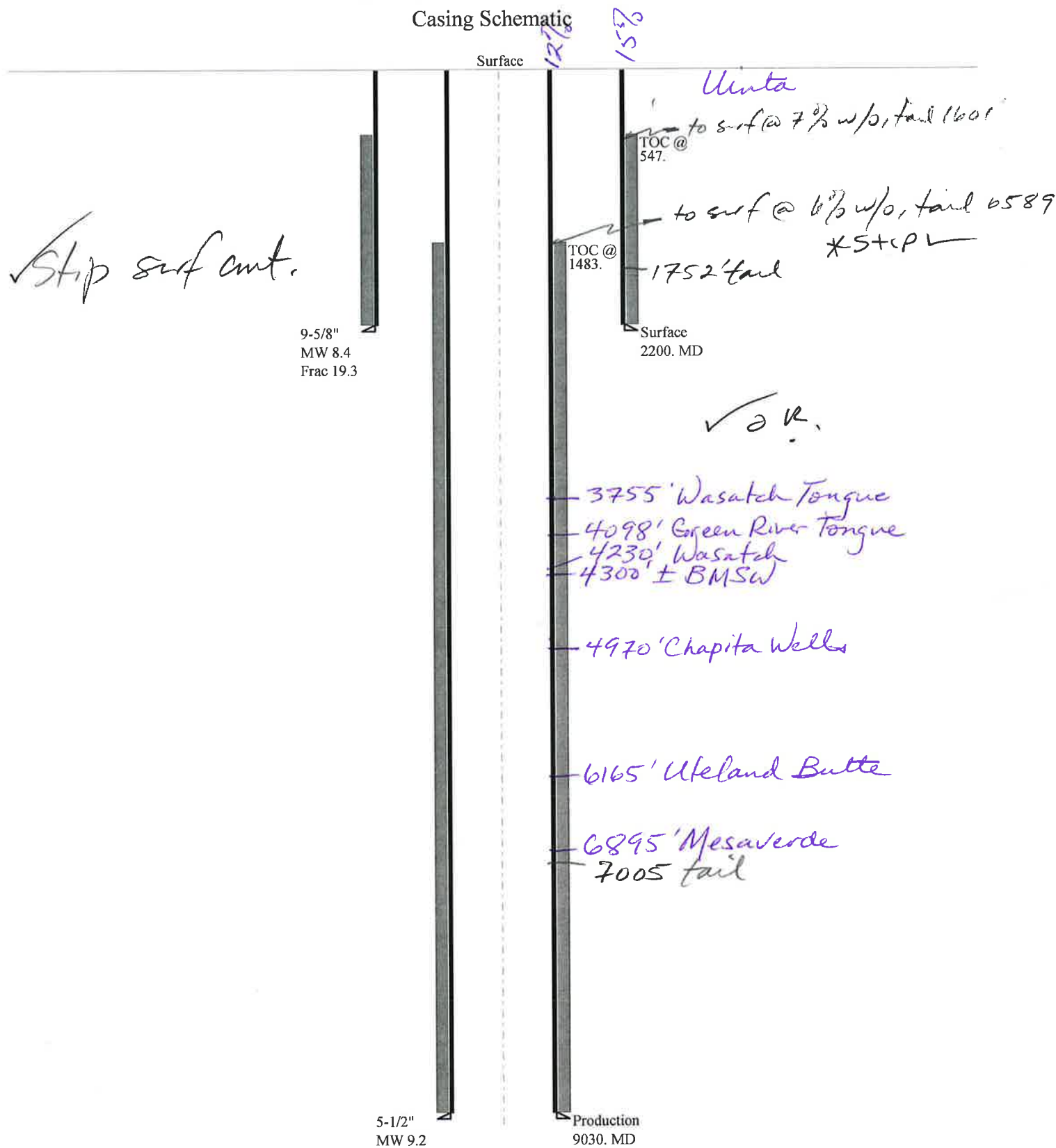
Calculations	Prod String	5.500	"	
Max BHP (psi)	.052*Setting Depth*MW=	4320		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	3236	NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	2333	YES	OK
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	2817	NO	OK
Required Casing/BOPE Test Pressure=		3000	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		2200	psi *Assumes 1psi/ft frac gradient	

Calculations	String		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO	
Required Casing/BOPE Test Pressure=			psi	
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient	

Calculations	String		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO	
Required Casing/BOPE Test Pressure=			psi	
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient	

43047521090000 LCU 4-36F

Casing Schematic



Well name:	43047521090000 LCU 4-36F	
Operator:	XTO ENERGY INC	
String type:	Surface	Project ID: 43-047-52109
Location:	UINTAH COUNTY	

Design parameters:**Collapse**

Mud weight: 8.400 ppg
Design is based on evacuated pipe.

Minimum design factors:**Collapse:**

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 105 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 547 ft

Burst

Max anticipated surface pressure: 1,936 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,200 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.

Neutral point: 1,926 ft

Non-directional string.**Re subsequent strings:**

Next setting depth: 9,030 ft
Next mud weight: 9.200 ppg
Next setting BHP: 4,316 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,200 ft
Injection pressure: 2,200 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2200	9.625	36.00	J-55	ST&C	2200	2200	8.796	19122
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	960	2020	2.104	2200	3520	1.60	79.2	394	4.97 J

Prepared by: Helen Sadik-Macdonald
Div of Oil, Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: January 5, 2012
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2200 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:

43047521090000 LCU 4-36F

Operator:

XTO ENERGY INC

String type:

Production

Project ID:

43-047-52109

Location:

UINTAH COUNTY

Design parameters:**Collapse**

Mud weight: 9.200 ppg

Design is based on evacuated pipe.

Minimum design factors:**Collapse:**

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No

Surface temperature: 74 °F

Bottom hole temperature: 200 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 100 ft

Cement top: 1,483 ft

Burst

Max anticipated surface pressure:

2,329 psi

Internal gradient:

0.220 psi/ft

Calculated BHP

4,316 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)

8 Round LTC: 1.80 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.60 (B)

Non-directional string.

Tension is based on air weight.

Neutral point: 7,770 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	9030	5.5	17.00	N-80	LT&C	9030	9030	4.767	50897
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	4316	6290	1.457	4316	7740	1.79	153.5	348	2.27 J

Prepared by: Helen Sadik-Macdonald
Div of Oil, Gas & MiningPhone: 801 538-5357
FAX: 801-359-3940Date: January 5, 2012
Salt Lake City, Utah**Remarks:**

Collapse is based on a vertical depth of 9030 ft, a mud weight of 9.2 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

From: Jim Davis
To: APD APPROVAL
CC: Diane_Jaramillo@xtoenergy.com; Kelly_Kardos@xtoenergy.com
Date: 2/23/2012 12:47 PM
Subject: APD approvals 10 for XTO

The following APDs have been approved by SITLA including arch and paleo clearance.

4304752053	AP 14-2J
4304752054	AP 16-2J
4304752055	AP 5-2JX
4304752102	LCU 16-36F
4304752103	LCU 2-2H
4304752104	LCU 4-2H
4304752106	LCU 7-36F
4304752107	LCU 1-36F
4304752108	LCU 2-36F
4304752109	LCU 4-36F

-Jim

Jim Davis
Utah Trust Lands Administration
jimdavis1@utah.gov
Phone: (801) 538-5156

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator XTO ENERGY INC
Well Name LCU 4-36F
API Number 43047521090000 **APD No** 4760 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 NWNW **Sec** 36 **T w** 10.0S **Rng** 20.0E 860 FNL 889 FWL
GPS Coord (UTM) 618041 4418363 **Surface Owner**

Participants

Misty Roberts (XTO), Brandon Bowthorpe (UELS), Jim Davis (SITLA), Krista Wilson (XTO), Damion Jones (XTO), Jody Mecham (XTO), Justin Justice (Kaufusi Excavating), Ben Williams (DWR)

Regional/Local Setting & Topography

The general area is approximately 13 miles southwest of Ouray, Utah and in an oil field Unit known as Little Canyon. The area is characterized by rolling hills and benches, which are frequently intersected by somewhat gentle to deep draws running westerly a distance of about 3 miles into Willow Creek. The draws are occasionally rimmed with steep side hills, which have exposed sand stone bedrock cliffs along the rims. Willow Creek contains a perennial stream. No other seeps, springs or streams are known to exist in the area. An occasional pond collecting runoff for livestock and antelope occurs.

The LCU 4-36F proposed gas well is 12.8 miles southeast of Ouray and is accessed by the Seep Ridge Road and the road planned to LCU 5-36F well. A new road 0.2 miles in length will be constructed to the north from this location.

The location lies longitudinally along a gentle north sloping broad ridge, which ends at the north side of the location. Here the terrain slopes off steeply into a draw, which becomes deep as it runs toward Willow Creek. A deep draw to the west of the location joins this draw.

Drainage on the west portion of the location will be filled at its beginning. No diversions around the location are needed. This location is a spacing exception located to miss the draws to the west and north.

Surface Use Plan

Current Surface Use
Wildlfe Habitat

New Road Miles	Well Pad	Src Const Material	Surface Formation
0.2	Width 200 Length 355	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Moderately vegetated with curly mesquite, Gardner saltbrush, winter fat, globe mallow, pepper grass, horsebrush, shadscale, broom snake weed, budsage, cheat grass and mustard weed.

Antelope, coyotes, rabbits and miscellaneous small mammals and birds.

Soil Type and Characteristics

Moderately deep gravely sandy loam with scattered surface rock.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diversion Required? N

Berm Required? Y

steep draws nearby

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y **Paleo Potential Observed?** N **Cultural Survey Run?** Y **Cultural Resources?** N

Reserve Pit

Site-Specific Factors

Site Ranking

Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)	300 to 1320	10
Native Soil Type	Mod permeability	10
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)	10 to 20	5
Affected Populations		
Presence Nearby Utility Conduits	Not Present	0
Final Score		30 1 Sensitivity Level

Characteristics / Requirements

A 60' x 189' x 10' deep reserve pit is planned in an area of cut on the southeast side of the location. It will be lined with a 16-mil liner with an appropriate thickness of felt sub-liner.

Closed Loop Mud Required? Y **Liner Required?** Y **Liner Thickness** 16 **Pit Underlayment Required?** Y

Other Observations / Comments

API Well Number: 43047521090000

This well was previously approved under the same name. The origianl presite done by Floyd Bartlet. Location was never built. The previous well was the LCU 4-36F, API# 43-047-39782

Richard Powell
Evaluator

10/19/2011
Date / Time

Application for Permit to Drill

Statement of Basis

2/29/2012

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
4760	43047521090000	LOCKED	GW	S	No
Operator	XTO ENERGY INC		Surface Owner-APD		
Well Name	LCU 4-36F		Unit	LITTLE CANYON	
Field	NATURAL BUTTES		Type of Work	DRILL	
Location	NWNW 36 10S 20E S 860 FNL 889 FWL GPS Coord (UTM) 617979E 4418564N				

Geologic Statement of Basis

XTO proposes to set 2,200 feet of surface casing cemented to the surface. The base of the moderately saline water is estimated at 4,300 feet. A search of Division of Water Rights records shows 1 water well within a 10,000 foot radius of the proposed location. This well is over a mile from the proposed location. The well is owned by the BLM it is listed as used for stock watering. The well depth is listed as 2,500 feet. The surface formation at this location is the Uinta Formation. The Uinta Formation is made up of discontinuous sands interbedded with shales and are not expected to produce prolific aquifers. The proposed surface casing and cement should adequately protect any near surface aquifers. The production string cement should be brought up above the base of the moderately saline water to prevent it from mixing with fresher waters up hole.

 Brad Hill
APD Evaluator

 10/31/2011
Date / Time

Surface Statement of Basis

The general area is approximately 13 miles southwest of Ouray, Utah and in an oil field Unit known as Little Canyon. The area is characterized by rolling hills and benches, which are frequently intersected by somewhat gentle to deep draws running westerly a distance of about 3 miles into Willow Creek. The draws are occasionally rimmed with steep side hills, which have exposed sand stone bedrock cliffs along the rims. Willow Creek contains a perennial stream. No other seeps, springs or streams are known to exist in the area. An occasional pond collecting runoff for livestock and antelope occurs.

The LCU 4-36F proposed gas well is 12.8 miles southeast of Ouray and is accessed by the Seep Ridge Road and the road planned to LCU 5-36F well. A new road 0.2 miles in length will be constructed to the north from this location.

The location lies longitudinally along a gentle north sloping broad ridge, which ends at the north side of the location. Here the terrain slopes off steeply into a draw, which becomes deep as it runs toward Willow Creek. A deep draw to the west of the location joins this draw. Drainage on the west portion of the location will be filled at its beginning. No diversions around the location are needed. This location is a spacing exception located to miss the draws to the west and north.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA attended this onsite but expressed no concerns with drilling at this site. Ben Williams of DWR was also in attendance but made no statement regarding this site. This investigation did not reveal any significant issues or situations, which should prohibit access to or drilling and operating the well at this site.

RECEIVED: February 29, 2012

Application for Permit to Drill Statement of Basis

2/29/2012

Utah Division of Oil, Gas and Mining

Page 2

Richard Powell
Onsite Evaluator

10/19/2011
Date / Time

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Surface	The reserve pit shall be fenced upon completion of drilling operations.
Surface	The well site shall be bermed to prevent fluids from leaving the pad.

RECEIVED: February 29, 2012

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 10/7/2011

API NO. ASSIGNED: 43047521090000

WELL NAME: LCU 4-36F

OPERATOR: XTO ENERGY INC (N2615)

PHONE NUMBER: 505 333-3647

CONTACT: Krista Wilson

PROPOSED LOCATION: NWNW 36 100S 200E

Permit Tech Review: ☒

SURFACE: 0860 FNL 0889 FWL

Engineering Review: ☒

BOTTOM: 0860 FNL 0889 FWL

Geology Review: ☒

COUNTY: UINTAH

LATITUDE: 39.90895

LONGITUDE: -109.61972

UTM SURF EASTINGS: 617979.00

NORTHINGS: 4418564.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML-47391

PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

SURFACE OWNER: 3 - State

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

☒ PLAT☒ Bond: STATE/FEE - 104312762☐ Potash☒ Oil Shale 190-5☐ Oil Shale 190-3☐ Oil Shale 190-13☒ Water Permit: 43-10447☐ RDCC Review:☐ Fee Surface Agreement☐ Intent to Commingle

Commingle Approved

LOCATION AND SITING:

☐ R649-2-3.

Unit: LITTLE CANYON

☐ R649-3-2. General☐ R649-3-3. Exception☒ Drilling Unit

Board Cause No: Cause 259-01

Effective Date: 8/18/2006

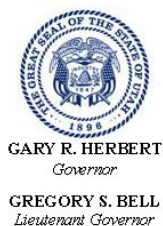
Siting: Suspends General Siting

☐ R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 5 - Statement of Basis - bhll
17 - Oil Shale 190-5(b) - dmason
25 - Surface Casing - hmadonald

RECEIVED: February 29, 2012



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: LCU 4-36F

API Well Number: 43047521090000

Lease Number: ML-47391

Surface Owner: STATE

Approval Date: 2/29/2012

Issued to:

XTO ENERGY INC, 382 Road 3100, Aztec, NM 87410

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 259-01. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this

well:

- Any changes to the approved drilling plan contact Dustin Doucet
- Significant plug back of the well contact Dustin Doucet
- Plug and abandonment of the well contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well contact Carol Daniels

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at <http://oilgas.ogm.utah.gov>

- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:



For John Rogers
Associate Director, Oil & Gas



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

March 20, 2013

Rick Redus
XTO Energy Inc.
382 Road 3100
Aztec, NM 87410

Re: APDs Rescinded for XTO Energy Inc.
Uintah/Emery County

Dear Mr. Redus:

Enclosed find the list of APDs that you requested to be rescinded. No drilling activity at these locations has been reported to the division. Therefore, approval to drill these wells is hereby rescinded, effective March 20, 2013.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason
Environmental Scientist

cc: Well File
Bureau of Land Management, Vernal
SITLA, Ed Bonner





Fwd: APDs

Brad Hill <bradhill@utah.gov>

Wed, Mar 20, 2013 at 2:35 PM

To: Diana Mason <DIANAWHITNEY@utah.gov>

Here are some you can get rid of.

----- Forwarded message -----

From: **Redus, Richard** <Richard_Redus@xtoenergy.com>

Date: Wed, Mar 20, 2013 at 2:31 PM

Subject: APDs

To: "bradhill@utah.gov" <bradhill@utah.gov>

Mr Hill,

Please cancel the below APD's as XTO will not be drilling these wells within the foreseeable future.

XTO ENERGY INC	4304737569	RBU 14-15F	DRILL	01/12/2006	01/12/2013
XTO ENERGY INC	4304752133	LCU 4-16H	DRILL	01/12/2012	01/12/2013
XTO ENERGY INC	4301530704	UT FED 18-7-22-24	DRILL	01/24/2007	01/24/2013
XTO ENERGY INC	4304737648	RBU 6-4E	DRILL	01/30/2006	01/30/2013
XTO ENERGY INC	4304737652	RBU 7-16F	DRILL	01/30/2006	01/30/2013
XTO ENERGY INC	4304737653	LCU 14-9H	DRILL	01/30/2006	01/30/2013
XTO ENERGY INC	4304751354	KC 15-32E	DRILL	02/03/2011	02/03/2013
XTO ENERGY INC	4304736295	RBU 10-21E	DRILL	02/09/2005	02/09/2013
XTO ENERGY INC	4304740524	RBU 30-23E	DRILL	02/10/2009	02/10/2013
XTO ENERGY INC	4304740529	RBU 21-24E	DRILL	02/10/2009	02/10/2013

XTO ENERGY INC	4304740530	RBU 28-23E	DRILL	02/10/2009	02/10/2013
XTO ENERGY INC	4304740531	RBU 23-23E	DRILL	02/10/2009	02/10/2013
XTO ENERGY INC	4304740532	RBU 31-23E	DRILL	02/10/2009	02/10/2013
XTO ENERGY INC	4304740533	RBU 25-23E	DRILL	02/10/2009	02/10/2013
XTO ENERGY INC	4304739050	LCU 15-4H	DRILL	02/12/2007	02/12/2013
XTO ENERGY INC	4304739051	KC 15-31E	DRILL	02/21/2007	02/21/2013
XTO ENERGY INC	4304752053	AP 14-2J	DRILL	02/29/2012	02/28/2013
XTO ENERGY INC	4304752054	AP 16-2J	DRILL	02/29/2012	02/28/2013
XTO ENERGY INC	4304752055	AP 5-2JX	DRILL	02/29/2012	02/28/2013
XTO ENERGY INC	4304752102	LCU 16-36F	DRILL	02/29/2012	02/28/2013
XTO ENERGY INC	4304752103	LCU 2-2H	DRILL	02/29/2012	02/28/2013
XTO ENERGY INC	4304752104	LCU 4-2H	DRILL	02/29/2012	02/28/2013
XTO ENERGY INC	4304752106	LCU 7-36F	DRILL	02/29/2012	02/28/2013
XTO ENERGY INC	4304752108	LCU 2-36F	DRILL	02/29/2012	02/28/2013
XTO ENERGY INC	4304752109	LCU 4-36F	DRILL	02/29/2012	02/28/2013
XTO ENERGY INC	4304739068	KC 7-33E	DRILL	03/05/2007	03/05/2013
XTO ENERGY INC	4304739069	KC 13-33E	DRILL	03/05/2007	03/05/2013
XTO ENERGY INC	4304739070	KC 15-33E	DRILL	03/05/2007	03/05/2013
XTO ENERGY INC	4304737748	RBU 14-16F	DRILL	03/09/2006	03/09/2013

XTO ENERGY INC	4304740588	RBU 22-24E	DRILL	03/11/2009	03/11/2013
XTO ENERGY INC	4304740492	LCU 2-16H	DRILL	03/12/2009	03/12/2013
XTO ENERGY INC	4304740493	LCU 1-16H	DRILL	03/12/2009	03/12/2013
XTO ENERGY INC	4304739158	LCU 15-3H	DRILL	03/28/2007	03/28/2013
XTO ENERGY INC	4304739159	LCU 5-3H	DRILL	03/28/2007	03/28/2013

Rick Redus

Permitting Specialist

XTO Energy Western Division

Wrk: 303-397-3712

Cell: 720-539-1673

From: bradhill@utah.gov [mailto:bradhill@utah.gov]

Sent: Monday, March 04, 2013 1:20 PM

To: Redus, Richard

Subject: Sundry For API Well Number 43047364300000

Notice of Intent: APD_EXTENSION API Number: 43047364300000 Operator: XTO ENERGY INC

Approved: 3/4/2013

—
Brad Hill P.G.
O & G Permitting Manager/Petroleum Geologist
State of Utah
Division of Oil, Gas, & Mining
Phone: (801)538-5315
Fax: (801)359-3940
email: bradhill@utah.gov